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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/598,948

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EXAMINER

CULBERT, ROBERTS P

ART UNIT

PAPER NUMBER

1792

MAIL DATE

DELIVERY MODE

03/27/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/598,948	Applicant(s) STACKELBERG ET AL.	
	Examiner Roberts Culbert	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/15/06</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

Claims 1-9 are objected to because of the following informalities:

Claim 1, 3, 5, 6, 7 “colours” should be “colors”.

Claim 1, “transfer” should be “transferring”.

Claim 1, “substances melts” should be “substance melts” or substances melt”.

Claim 8, “characterized in the picture” should be “characterized in that the picture”.

Claim 8, “the transfer” should be “transferring”

Claim 9, “mould” should be “mold”.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claim 1 the step of firing is unclear since the relationship between the “sequences” and the “moments” have not been clearly recited such that it is unclear how the colors are supplied one by one or in moments one by one in relation to the firing sequences. The phrase “one by one” is unclear since it may be interpreted to refer to colors and/or moments and one skilled in the art would not be reasonably apprised of the scope of the invention. The phrase “while holding the temperature constant on various levels during times of different length” is unclear since it is unclear what the relationship is to firing sequences and/or supplying colors. Further, it is unclear if the “highest temperature” refers to the

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temperature for each color or firing sequence or the highest temperature used. Further the step of determining reads on a mental process and does not materially affect the process as broadly recited. It is suggested that the claim be reworded to clearly and positively recite the steps performed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent 6,336,723 to Nicolin.

Regarding Claim 1, Nicolin teaches reproduction of a photo on glass by transferring colors one by one (*recited Aerograph technique separates colors*) and firing at a temperature of 450-750°C.

Nicolin does not expressly teach length the temperature is maintained for a firing sequence.

However, Nicolin teaches a range for the temperatures and the firing depends on time and temperature. It would have been obvious to one of ordinary skill in the art at the time of invention to hold temperature constant on levels during times of different length as broadly recited in order to determine optimal firing temperature within the range for the supplied colors in the well known manner.

Regarding the limitations of determining temperature based on viscosity, the step reads broadly on a nebulous mental calculation which does not materially affect the recited process.

Regarding the limitations of melting into the surface layer reads broadly on the process of Nicolin since the ceramic is at least melted into a conformal relationship with the surface.

Regarding the limitations of retaining glass thickness, since temperatures below the melting point are used it may be assumed that the glass retains thickness as broadly recited.

Regarding Claim 2, Nicolin teaches 450-750°C.

Regarding Claim 3, Nicolin teaches a ceramic material. (Col. 2 Line 48 – Col. 3, Line 15)

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Regarding Claim 4, based on the materials, it may be reasonably assumed the surface is free of metal ions as broadly recited.

Regarding Claim 5, screen printing is well known for applying inks to glass as recited by Nicolin (Background section) and applicants admitted prior art (APA). Thus one skilled in the art would have found it obvious at the time of invention to provide screen printing in the well known manner depending on the specific requirements of the image.

Regarding Claims 6 and 7, Nicolin teaches Aerograph which uses nozzle and computer control for providing a picture. (See Col. 4, Line 59 – Col. 5, Line 15)

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,336,723 to Nicolin. In view of U.S. Patent 4,882,301 to Gettys et al.

Regarding Claim 9, mold during firing, U.S. Patent 4,882,301 to Gettys et al. teaches glass sections produced with curvature, heated to about 700° C (1000-1350 F) employing molding pressing techniques during firing. It would have been obvious to one of ordinary skill in the art at the time of invention to use a support mold in order to produce a curvature for glass as recited by Gettys et al. (See *Background*)

Allowable Subject Matter

Claim 8 appears to be allowable if rewritten to overcome all of the rejections under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberts Culbert whose telephone number is (571) 272-1433. The examiner can normally be reached on Monday-Friday (9:00-5:30).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on (571) 272-1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roberts Culbert/
Primary Examiner, Art Unit 1792